Testimony of Jay Kitchen, President
Personal Communications Industry Association
(Summary)

Good morning Mr. Chairman and members of the Subcommittee. I would like to commend the Chairman for addressing the important question of cellular privacy, an issue that impacts all American citizens and telecommunications providers.

PCIA is the largest wireless communications trade association in America. We represent a host of wireless technologies, most notably broadband personal communications services ("PCS") and paging. PCIA believes that PCS technology offers the privacy solution you seek.

Unlike our cellular competitors, all PCS telephones transmit a digital signal that transmits little packets or bits of information in separate pieces which are then reassembled upon reception, making it virtually impossible to intercept without high tech equipment. If one attempted to intercept a PCS signal, much of what they would hear would be like the squeaks and squeals that you hear when you are logging on to the internet or sending a fax. Nearly all Cellular telephones, on the other hand, transmit information much like a radio or television wave allowing calls to be easily intercepted by a scanner or even an older television.

Currently, there are laws to protect wireless consumers from eavesdropping. Unfortunately, these laws are virtually unenforceable. Therefore, Congress should support new advanced digital wireless networks, like PCS, that can ensure that the privacy needs of Americans are met.

Testimony of Jay Kitchen, President
Personal Communications Industry Association
(PCIA)

Before
U.S. House of Representatives
Committee on Commerce
Subcommittee on Telecommunications, Trade, and Consumer Protection

Hearing on Cellular Privacy

February 5, 1997

Testimony of Jay Kitchen, President

Personal Communications Industry Association

Before
U.S. House of Representatives
Committee on Commerce
Subcommittee on Telecommunications, Trade, and Consumer Protection

Hearing on Cellular Privacy
February 5, 1997

Good morning. I am Jay Kitchen, President and CEO of the Personal Communications Industry Association ("PCIA"). I want to thank the Chairman and other members of the Subcommittee for giving the Personal Communications Industry Association -- PCIA -- the opportunity to testify before you today. I would also like to commend the Chairman for addressing the important question of cellular privacy, an issue profoundly impacting all American citizens and telecommunications providers. You face a difficult dilemma -- how to protect a citizen's right to privacy without expanding federal regulation of the private sector. PCIA believes that personal communications services or "PCS" technology offers the solution you seek.

I would like to first give you a little background on PCIA. Our Association is the largest wireless communications trade association in America. Our member companies represent a host of different wireless technologies, including both broadband & narrowband PCS, paging, ESMR, and SMR. Through our pioneering PCS division, PCIA has been at the forefront of policy and technology developments which launched the PCS industry.

As you may know, all PCS companies, unlike cellular, were required to purchase their licenses at auctions held by the Federal Communications Commission. Understandably, PCS providers are eager to offer their services to the public as soon as possible. Already, ten companies have deployed broadband PCS telephone service in the United States, and that number may double by 1998. Donaldson, Lufkin and Jenrette Financial Group estimated that by the end of 1996 there were approximately 300,000 domestic PCS subscribers. In addition, they anticipated that our subscriber base would grow to approximately 3 million in 1997 and to 15 million by the year 2000. The number of PCS providers and employers will grow concurrently, providing for a dynamic and competitive market. According to a Merrill Lynch study, PCS not only offers American consumers the very best wireless technology and quality, but at an average cost that is 18 percent below cellular, and depending on calling patterns, the savings with PCS can be as high as 40 percent.

PCIA members are currently providing service in a number of states and hope to expand PCS service to most of America by the end of 1997. For example, one of our members, PrimeCo Personal Communications, has begun offering service to the Chairman's constituents in Louisiana, while another PCIA member, Sprint PCS, will deploy their system in Louisiana later this year. Also, a third PCIA member, Pocket Communications, a recent small business licensee, will provide additional competition in the area at a later date.

The issue of wireless communications privacy is not new to Members of Congress. In 1986, Congress passed the Electronic Communications Privacy Act, which

made it illegal to divulge the contents of cellular communications. In 1993, Congress passed the Telephone Disclosure and Dispute Resolution Act, which outlawed the sale and manufacture of scanners capable of intercepting cellular telephone signals. Those who violated the law could face up to five years in prison and fines of up to $250,000. The problem was and remains that these laws are virtually unenforceable. Anyone can go to Radio Shack and purchase a scanner. And while these scanners do not readily have the capability to intercept cellular calls, modifications can easily be made. Indeed, instructions for scanner alteration can be found all over the internet and in numerous electronic trade publications. As one expert put it, "cellular technology…is as easy to tune in as FM radio." In fact, someone with an older television that is able to tune to channel 70 or above can probably listen in to unsuspecting cellular callers. In short, with millions of scanners in the United States, users of analog cellular phones must resort to extremely expensive encryption devices or conduct every conversation as though it were being intercepted. To provide American consumers and businesses with the privacy that they expect, analog cellular users should also inform the person that they are calling that their call is very vulnerable to eavesdropping.

Quite naturally, therefore, some have called for more laws and more regulations. But certain pioneers in the wireless industry have found a technological alternative, one that offers the desired privacy without need for further federal government intervention. Enter digital personal communications services.

Some may ask what the differences are between the traditional cellular telephone and a broadband PCS phone. While the underlying technologies are similar, important

improvements give PCS important advantages over existing cellular phones. First, PCS makes more efficient use of its spectrum, allowing for enhanced service features at lower costs. Second, PCS' digital delivery permits far greater encryption, creating a more secure network for wireless communications.

The reason for this difference in security is really very simple. Traditional cellular telephones send out a wave of information, much like a radio or television signal, unscrambled and easily intercepted. PCS telephones, on the other hand, are 100 percent digital, transmitting little packets or bits of information in separate pieces which are then reassembled upon reception. Like a personal computer, PCS technology transforms spoken words into a complex binary algorithm of 1's and 0's, representing meaningless static to the "ears" of a scanner. In addition, there are infinite different combinations that PCS companies use for breaking up and reassembling the codes. This factor alone eliminates the casual hacker, but even if a determined eavesdropper attempted to intercept a PCS phone conversation, the sound they would pick up would be much like the squeaks and squeals that you hear when you log on to the internet or send a fax. Although nothing is absolute, it would take extremely sophisticated, expensive computers and devices, much like those used by the CIA and top law enforcement agencies, to possibly decode a PCS signal. Furthermore, in some PCS technologies, the coding scheme is changed from call to call, so even if a sophisticated eavesdropper was able to break one of the codes to intercept a call, he would be back to square one with the next call he targeted.

Now for some, PCS may seem too secure. If our digital systems are so difficult to intercept, then how will law enforcement be able to perform its legitimate wiretapping functions? Well, the FBI rarely uses a scanner to perform surveillance on wireless telephone calls. When a proper warrant is issued, federal surveillance is performed with the cooperation of telecommunications service providers. For example, phone taps are usually installed at the switch within a wireless telephone facility.

Mr. Chairman, PCS is the solution to your dilemma. Although, I'd like to point out that our members faced and still face several obstacles of which our competitors did not. All of our PCS members were required to purchase their spectrum at auction, raising billions of dollars for the U.S. Treasury-- our competitors were not. Our members were required to negotiate relocation agreements with companies that were licensed for the spectrum upon which they bid and pay millions of dollars in relocation costs-- our competitors were not. Our members face tougher local zoning laws for build out -- our competitors did not face this obstacle when they entered the market.

Mr. Chairman, PCIA members believe that Americans have a right to wireless telephone privacy. PCS telephones protect that right. Congress may decide that tougher penalties or stronger regulations are the way to go, but PCIA members feel that a technology is here and in place to protect the privacy of the American people. We hope that our members are able to overcome the market and regulatory obstacles that we currently face in order to deploy service to every American that would like to engage in a private telephone conversation.

Thank you again for the opportunity to testify at today's hearing. I would be glad to answer any questions that you may have.